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PATENT ABSTRACTS OF JAPAN

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(54) NONAQUEOUS ELECTROLYTE BATTERY

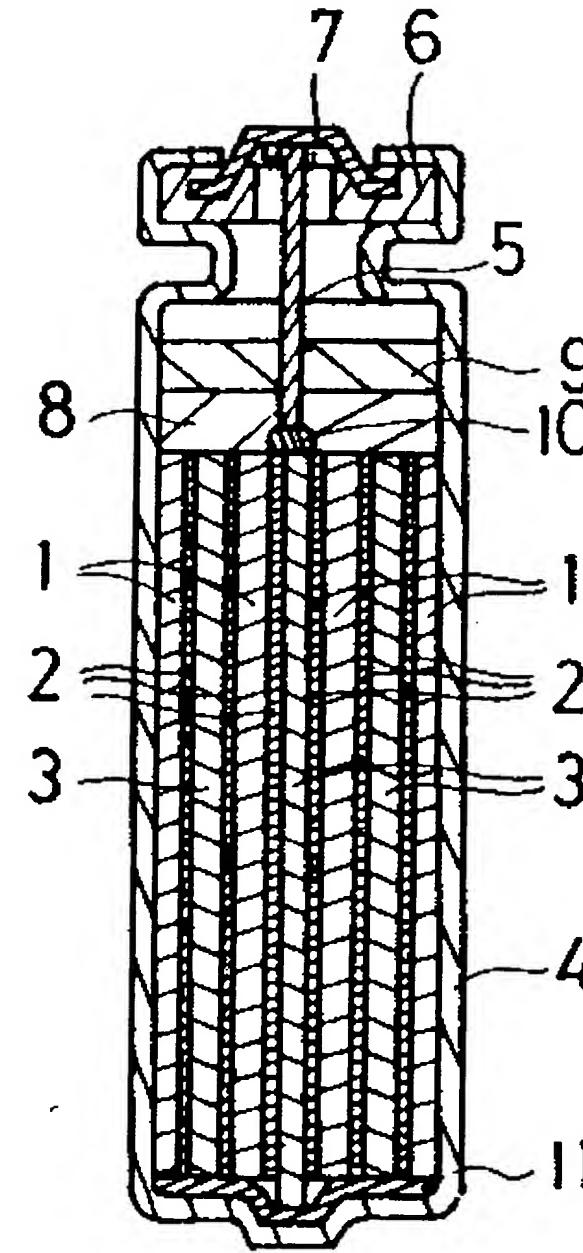
(57) Abstract:

PURPOSE: To obtain a nonaqueous electrolyte battery which is safe even under a condition of high temperature by providing the battery with a negative electrode containing a light metal as an active material, a positive electrode corresponding to the negative electrode and a nonaqueous-system electrolyte and adding a high-boiling-point inactive substance which is in a fluid form at over 150° C.

CONSTITUTION: A positive electrode 1 consists of manganese dioxide used as an active material, acetylene black used as a conductive agent and polytetrafluoroethylene used as a binding agent. A negative electrode 3 consists of lithium. After the flexible belt-like positive electrode 1, a separator 2 made of a nonwoven polypropylene fabric and the negative electrode 3 are laid one upon another, this is rolled in spiral form before being inserted in a positive exterior can 4 made of a stainless steel. Next, the negative

electrode 3 located in the center of the spiral body is spot-welded through a tab 5 to a negative current collector cap 7 unified with an insulator 6. Electrolyte 8 consists of solution prepared by dissolving lithium perchlorate in propylene carbonate. In such a nonaqueous electrolyte battery, a phase consisting of liquid paraffin 9 used as a high-boiling-point inactive substance which is in liquid form at over 150°C is formed above the electrolyte 8. Owing to the above constitution, any exothermic combustion of the battery can be prevented even when the electrolyte 8 effuses from the battery.

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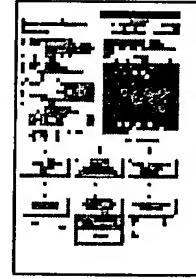
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Title: **JP60025157A2: NONAQUEOUS ELECTROLYTE BATTERY**
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Country: **JP** Japan
 Kind: **A** (See also: [JP60025157B4](#))

Inventor(s): **IKEDA KONOSUKE**
YAMASHITA ETSURO
NAKAJIMA HITOSHI



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Applicant/Assignee: **SANYO ELECTRIC CO LTD**
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Issued/Filed Dates: **Feb. 7, 1985 / July 20, 1983**

Application Number: **JP1983000133351**

IPC Class: **H01M 6/16;**

Priority Number(s): **July 20, 1983 JP1983000133351**



Abstract: **Purpose:** To obtain a nonaqueous electrolyte battery which is safe even under a condition of high temperature by providing the battery with a negative electrode containing a light metal as an active material, a positive electrode corresponding to the negative electrode and a nonaqueous-system electrolyte and adding a high-boiling-point inactive substance which is in a fluid form at over 150°C.

Constitution: A positive electrode 1 consists of manganese dioxide used as an active material, acetylene black used as a conductive agent and polytetrafluoroethylene used as a binding agent. A negative electrode 3 consists of lithium. After the flexible belt-like positive electrode 1, a separator 2 made of a nonwoven polypropylene fabric and the negative electrode 3 are laid one upon another, this is rolled in spiral form before being inserted in a positive exterior can 4 made of a stainless steel. Next, the negative electrode 3 located in the center of the spiral body is spot-welded through a tab 5 to a negative current collector cap 7 unified with an insulator 6. Electrolyte 8 consists of solution prepared by dissolving lithium perchlorate in propylene carbonate. In such a nonaqueous electrolyte battery, a phase consisting of liquid paraffin 9 used as a high-boiling-point inactive substance which is in liquid form at over 150°C is formed above the electrolyte 8. Owing to the above constitution, any exothermic combustion of the battery can be prevented even when the electrolyte 8 effuses from the battery.

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